CLAIMS

1. Structural Cr-containing steel comprising:

0.002 to 0.02% by mass of C;

0.002 to 0.02% by mass of N;

0.05 to 1.0% by mass of Si;

0.05 to 1.0% by mass of Mn;

0.04% by mass or less of P;

0.02% by mass or less of S;

0.001 to 0.1% by mass; of Al

6.0 to 10.0% by mass of Cr, and

the balance being Fe and unavoidable impurities,

wherein the Cr-concentration in the surface layer of the steel is equal to or more than the value wherein 1% by mass is subtracted from the Cr-concentration within the steel.

2. Structural Cr-containing steel according to Claim 1, further comprising 0.1 to 1.0% by mass of Cu.

3. Structural Cr-containing steel according to Claim 1 or Claim 2, further comprising at least one of:

0.1 to 1.0% by mass of Ni; and

0.1 to 1.0% by mass of Mo.

4. Structural Cr-containing steel according to any one of Claim 1 through Claim 3, further comprising at least one of:

0.005 to 0.10% by mass of Nb; and

0.005 to 0.20% by mass of V.

5. A manufacturing method for structural Cr-containing hot-rolled steel comprising:

a step wherein a steel material comprising:

0.002 to 0.02% by mass of C;

0.002 to 0.02% by mass of N;

0.05 to 1.0% by mass of Si;

0.05 to 1.0% by mass of Mn;

0.04% by mass or less of P;

0.02% by mass or less of S;

0.001 to 0.1% by mass of Al;

6.0 to 10.0% by mass of Cr; and

the balance being Fe and unavoidable impurities, is formed into a steel strip by hot rolling after reheating; wherein the steel surface is removed by a removal depth of 10 to 200 μm by descaling.

6. A manufacturing method for structural Cr-containing cold-rolled steel, wherein following said descaling processing according to Claim 5, cold rolling, annealing cold-rolled steel, and pickling are performed.

7. A manufacturing method for structural Cr-containing steel according to Claim 5 or Claim 6, wherein said steel material further comprising Cu of 0.1 to 1.0% by mass.

8. A manufacturing method for structural Cr-containing steel according to Claim 5 or Claim 6, wherein said steel material further comprising at least one of:

0.1 to 1.0% by mass of Ni; and

0.1 to 1.0% by mass of Mo.

9. A manufacturing method for structural Cr-containing steel according to Claim 5 or Claim 6, wherein said steel material further comprising at least one of:

0.005 to 0.10% by mass of Nb; and

0.005 to 0.20% by mass of V.

10. Structural Cr-containing steel according to any one of Claim 1 through Claim 4, wherein said steel is employed for freezing containers.

11. A manufacturing method for structural Cr-containing hot-rolled steel according to Claim 5 or any one of Claim 7 through Claim 9, wherein said structural Cr-containing steel is employed for frame material of freezing containers.

12. A manufacturing method for structural Cr-containing cold-rolled steel according to Claim 6 or any one of Claim 7 through Claim 9, wherein said structural Cr-containing steel is employed for external-wall material of freezing containers.

13. A freezing container formed of said Cr-containing steel according to Claim 10, wherein formation of said freezing container is made by forming and welding, and wherein the steel surface is coated with dry-paint film thickness of 10 μm or more.

14. A freezing container formed of said Cr-containing steel manufactured with said manufacturing method according to Claim 11 or 12, wherein formation of said freezing container is made by forming and welding, and wherein the steel surface is coated with dry-paint film thickness of 10 μm or more.

15. Structural Cr-containing steel according to any one of Claim 1 through Claim 4, wherein said steel is used for civil engineering and construction.

16. A manufacturing method for structural Cr-containing hot-rolled steel according to Claim 5 or any one of Claim 7 through Claim 9, wherein said structural Cr-containing hot-rolled steel is used for civil engineering and construction.

17. A manufacturing method for structural Cr-containing cold-rolled steel according to Claim 6 or any one of Claim 7 through Claim 9, wherein said structural Cr-containing steel is used for civil engineering and construction.